

Exhibit 4

UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF OKLAHOMA

PETER POE, *et al.*,

Plaintiffs,

v.

GENTNER DRUMMOND, *et al.*,

Defendants.

No. 23-CV-00177-JFH-SH

EXPERT DECLARATION OF CURTIS E. HARRIS, M.S., M.D., J.D.

I, Curtis E. Harris, declare the following:

1. I was born and raised in Oklahoma City, and I have practiced medicine in Oklahoma for over 45 years. My specialties are Endocrinology and Metabolism and Internal Medicine, as well as medical law and ethics. Currently, I work full-time as the primary endocrinologist for The Clinic at Central Oklahoma Family Medical Center in Ada, Oklahoma, a center with around 300 employees and over 50 medical providers. I have held this position since 2018. I am a general adult endocrinologist, which includes adolescents.
2. I obtained a Master of Science (M.S.) in Biochemistry from the University of Washington in 1969. I then earned a Doctor of Medicine (M.D.) from the University of Washington School of Medicine in 1973. I graduated *summa cum laude*, and I received the Gary Leinbach Award for being the outstanding medical student that year. I did my Internship and Residency at the University of Washington. I also completed a Fellowship in Endocrinology at the University of Iowa from 1976 to 1978.
3. In 1978, I returned to Oklahoma to practice Endocrinology and Metabolism at Mercy Hospital.

4. I earned my J.D. from the Oklahoma City University School of Law in 1994, also *summa cum laude*, while working full-time as a physician during the day. In law school, I received numerous American Jurisprudence Awards, including in Torts, Contracts, Constitutional Law, Professional Ethics, Criminal Procedure, and Corporation Law.
5. In the early 2000s, I moved from Oklahoma City to Ada and took a year off from medical practice. In 2002, I began to work as the endocrinologist for the Chickasaw Nation, a practice I would continue until 2018. There, I served in the Chickasaw Nation Department of Health as the Medical Director and Chairman of the Diabetes Care Center, and as the Chairman of the Division of Endocrinology, from 2002 to 2018. I also served as the Chief of Staff (and Chief of Staff Elect) for the Chickasaw Nation Medical Center from 2014 to 2018.
6. From 2009 to 2011, I served as the President of the Oklahoma Board of Medical Licensure and Supervision, where I dealt with physician oversight, supervision, and discipline, as well as medical ethics. I served an additional five years as a Board Member.
7. From 2011 to 2020, I served as an Adjunct Professor of Medicine at the Oklahoma State University School of Medicine, where I taught Jurisprudence and Medical Ethics. From 1995 to 2022, I served as an Adjunct Professor of Law at the Oklahoma City University School of Law, where I taught Medical Law, a class that included medical ethics. I have also served as a Clinical Assistant Professor at the University of Oklahoma School of Medicine.
8. In the 1980s, I founded the American Academy of Medical Ethics, with the goal of opposing euthanasia and physician-assisted suicide. I served as its President from 1986

to 2003. In addition, I have at one time or another been a member or fellow of other medical and legal groups. This includes the Endocrine Society, the American College of Legal Medicine, the Christian Medical and Dental Associations, the American Diabetes Association, the Federation of State Medical Boards, the American Bar Association, the American Medical Association, and the Oklahoma State Medical Association. Among others, I am currently a member of the Oklahoma State Medical Association and the Endocrine Society.

9. I have also served on other boards and taken leadership roles in organizations. I was a Board Member of the Federation of State Medical Boards, an elected position by the membership of the FSMB, in which all the States elect 12 members for a three-year-term. I was the first physician from Oklahoma to be elected in the history of the FSMB. In addition, I served as a Board Member of the Oklahoma Blood Institute for 13 years, serving on the Board of Advisors for Mercy Health Center, and serving as a Trustee for the Christian Medical and Dental Society for 12 years.
10. I have also volunteered for various organizations. This includes serving as a volunteer physician for the Baptist Mission Center Indigent Clinic for 24 years, and serving as a volunteer physician, board member, and board chairman for Compassion Outreach in Ada from 2003 to the present.
11. I have been published numerous times over the years, in peer-reviewed journals and other publications. Early in my career, I focused on biochemistry in my studies and published writings. Eventually, I devoted significant effort to “life” issues (physician-assisted suicide, abortion, etc.), and I have also published and taught frequently on

ethics, medical practice, and medical malpractice.

12. Many years ago, I testified as a medical malpractice expert in various cases. I also testified in court on medical ethics issues. I have made several media appearances, as well, including on the *Oprah Winfrey Show*, the *NBC Today Show*, and on *National Public Radio*, and I have been quoted in the *New York Times* and *Time Magazine*, among other publications, typically on the intersection of life issues, medicine, law, and ethics.

Present case

13. I have been asked by the Oklahoma Attorney General's office to, as a preliminary matter, explain the potential risks and effects of the drugs implicated by Senate Bill 613, offer my opinion as to whether they should be provided to minors who have been diagnosed with gender dysphoria, and discuss the approach of the medical community on this issue. In doing so, I have reviewed Senate Bill 613, as well as the Endocrine Society guidelines in question.

14. I am not being reimbursed for any expense in preparing this document, nor for any travel or time spent in consultation.

15. The views expressed here are my own, and not those of any employer or affiliate.

16. This is a preliminary declaration, prepared on short notice. I reserve the right to amend my words based on further research and investigation. That said, I hold to the opinions expressed herein with a reasonable degree of medical certainty.

Specific experience

17. Endocrinology involves the study of hormones; it is the study of the chemistry of the body. As an endocrinologist, I have assisted patients with, among other things,

diabetes, thyroid disease, electrolyte issues, calcium issues, and pituitary disorders. In my current practice in Ada, I will often receive referrals from family practitioners who don't know how to manage a particular problem.

18. I have studied and utilized the drugs in question in this lawsuit. I have prescribed a puberty blocker like Lupron for cases of precocious puberty, for example, a handful of times in my career. I prescribe testosterone often, mostly on adult men, but occasionally on adolescents who have testicles that are small and scarred or who are delayed in their puberty. I have also used estrogen frequently, typically as part of estrogen replacement therapy for menopausal women. I have also prescribed estradiol and spironolactone.

Risks and Side Effects

19. All these drugs that I just mentioned have significant risks and serious side effects, especially if given in large doses. Some of these effects are not reversible. Further, surgical modification of sexual organs, including the breasts, is permanent and cannot be undone. But these drugs can have a similarly permanent effect, especially if given over longer periods of time. Here are just some of the potential risks from these drugs.
20. Puberty blockers. Puberty blockers are not altogether reversible. Many complications can occur with blocking agents. If I were advising an adolescent seeking puberty blocking agents, I would warn of a risk of permanent damage to the ovaries and testicles depending on their stage of development, a risk of injury to pituitary production of the sex hormones FSH and LH, and a lack of the hormones that are necessary for normal tissue development depending on the genetic identity of the adolescent. I would emphasize the risk the loss of fertility later in life, for both for boys and girls. I would

also tell them that the development of the brain occurs through puberty and into the early 20's, and that blocking agents may interfere with these processes. Finally, long-term side-effects have not been determined, and I would make sure they understood we do not know the long-term safety of these medications.

21. Testosterone. Testosterone causes facial hair growth, the lowering of the voice, and the thickening of skin. None of these side effects, once present, are reversible, they are permanent. High doses of testosterone can also accelerate cardiovascular disease in women, and potentially induce earlier heart attacks. Testosterone depletes calcium from the bones of girls and women, so there is a risk of osteoporosis and osteopenia. This is especially concerning considering a lot of the calcium that goes into bones happens during adolescence.

22. Estrogen/estradiol. Again, I would warn adolescent males desiring estrogen that there is a risk of a loss of fertility. There would also be a risk of thinner skin and easy bruising. Gaining weight is also a concern, because they will likely start developing fat in their breasts and elsewhere.

23. For all these drugs, I would also have concerns about brain (neuro) development. Puberty is a time when the brain goes through various important developmental stages. There does not exist data on CNS (brain) development in adolescents given these medications through puberty, but it is known that serious interruption of the body's biochemistry does retard normal neurological development.

Opinions

24. In my medical judgment, the available evidence does not demonstrate that puberty

blockers and hormones can be given safely to minors to treat gender dysphoria. There is a lot of pressure right now for endocrinologists to handle issues like this in their practice, from advocates, in the literature, and from medical organizations. I have declined to do so. This is so for several reasons.

25. For one thing, I do not believe that doctors should interfere with normal biological processes in a physically healthy minor. The key distinction between giving either testosterone or estrogen to encourage normal physical development and giving the same medications to interfere with development is the damage that can be caused by stopping normal development, perhaps permanently. It is the difference between night and day in healthcare.

26. The elevation of the subjective over the objective is also concerning. Unlike truly intersex anomalies, which I will treat, a finding of gender dysphoria does not involve a simple blood test, a genetic analysis, or a similarly objective measurement. Rather, it typically relies upon more subjective views of doctors, therapists, the family, and the patient. This leaves the door open for misdiagnoses or misunderstandings in a very complex area. For adolescents, especially, confusion relating to sexuality, puberty, personality, and identity is common. At young ages, throughout puberty and adolescence, many have asked some form of the question “Who am I?” We should not alter healthy minor’s normal bodies and bodily developments in response to these types of questions, nor risk harming children and adolescents for life when other resolvable mental health issues may be the source of the discomfort.

27. I also have significant concerns about the level of care necessary to treat adolescents

and adults who may have gender dysphoria. This disorder is very complex, with many factors relating to mental health possibly involved, and I do not think it is something that physicians should just be dabbling in or experimenting with. I don't believe that most doctors have the resources or facilities to competently evaluate and treat people in this situation. When I have turned down adults asking for hormone treatments, or declined to participate in such treatments, I have raised this very issue.

28. Finally, I have not come across any convincing data that would affect my practice indicating that any potential benefits of these procedures outweigh the risks. The Endocrine Society guidelines themselves admit that the evidence supporting these practices is typically low quality or non-existent. The Legislature, in my view, has made a rational decision that this may be doing more damage than good. I support Senate Bill 613.

29. Law or no law, I would encourage endocrinologists in Oklahoma not to participate in these procedures on minors. Again, it is a very difficult and complex area to work in, and at minimum it is not something that practitioners should conduct without training and support staff. This is especially so given what I believe is a significant potential of medical malpractice liability in the future relating to detransitioners, who generally and plausibly claim that they were not properly treated or informed in relation to their transitions.

30. In recent years, the Hippocratic Tradition has often been reduced to "Do No Harm," although it's much more than that. Nevertheless, I cannot see anything but harm with the kind of treatments in question here. The risks are just too great, whether it be

osteoporosis, long-term cardiovascular risk, fertility issues, or developing other as yet un-described problems. And that is just for the drugs. When it comes to surgery, I cannot imagine why anyone would mutilate or re-form a healthy minor's body for a subjective complaint. This reminds me far too much of female genital mutilation practices that are rightly condemned.

Genetics

31. The phrase “assigned at birth,” as often used in these conversations, is a bit of an insult to OBGYNs and pediatricians, because it implies that they are just randomly assigning male and female to newborns. They are not. Rather, they are accurately determining an individual's genetics—XX or XY—in the simplest way possible. It would be more accurate to use a term like a person's “genetics” rather than “sex assigned at birth.”
32. Moreover, genetics matter. As an endocrinologist, I have not treated transgender adults with hormones, for many of the same reasons I gave above regarding adolescents. But I have treated them for other issues, such as diabetes. And when I treat a transgender adult, I need to know what their genetics are, and I need to know whether they are taking hormones. That way, I can avoid miscalculating or mistreating them for other issues. Regardless of identity, whether an individual is genetically male or female is highly significant when it comes to medical treatment.

Endocrine Society

33. I have been a member of the Endocrine Society for several decades. The Endocrine Society, to the best of my knowledge or recollection, has not polled its members regarding the provision of puberty blockers, hormones, or surgery to minors diagnosed

with gender dysphoria. I disagree with the Endocrine Society's positions on these topics, and, as the existence of members like me illustrate, its views are not necessarily representative of its entire membership.

I state under penalty of perjury that the foregoing is true and correct.

Executed on June 15, 2023.


Name _____